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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,486	09/25/2003	John R. Moffatt	200308817-1	8250

7590 03/03/2009  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER
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SHEWAREGED, BETTELHEIM

ART UNIT	PAPER NUMBER
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1794

MAIL DATE	DELIVERY MODE
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03/03/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/672,486

**Applicant(s)**

MOFFATT ET AL.

**Examiner**

Betelhem Shewareged

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3.4.6, 8-26 and 28-33 is/are pending in the application.
- 4a) Of the above claim(s) 8-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3.4.6, 21-26 and 28-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/808)  
Paper No(s)/Mail Date 2/11/2009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Applicant's Request for Continued Examination (RCE) filed on 02/11/2009 has been fully considered. Amendment filed on 12/18/2007 has been entered. Claims 3, 4, 21, 28 and 33 are amended, claims 1, 2, 5, 7 and 27 are canceled, and claims 3, 4, 6, 8-26 and 28-33 are pending. Claims 8-20 are withdrawn from consideration as non-elected invention.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 3, 21, 22, 24-26 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Schleicher et al. (US 5,837,036).
4. Schleicher teaches a composition comprising poly(phenylene sulfide) coated on a support, wherein the poly(phenylene sulfide) has a molecular weight of 4,000-200,000, and a melting point of above 250 degree C. The poly(phenylene sulfide) comprises poly(1,4-phenylene sulfide) and/or poly(1,3-phenylene sulfide). (See col. 3, line 8 thru col. 3, line 49 and col. 4, line 34).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 4, 6, 21-26 and 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchida et al. (US 2002/0071941 A1) in view of Schleicher et al. (US 5,837,036).

7. Tsuchida teaches an ink jet recording medium comprising a homopolymer or copolymer compound containing sulfur (abstract) to ensure a high density of printed images, to provide images having high quality, to show only a slight color change and discoloration of printed images even when exposed to ozone gas and is excellent in the long-term shelf life (abstract). Tsuchida further teaches the compound containing sulfur is coated on a substrate such as paper and plastic film [0031]. Tsuchida does not teach the sulfur containing compound is poly(1,4-phenylene sulfide) or poly(1,3-phenylene sulfide). However, Schleicher teaches a composition that can be coated on a support, wherein the composition comprises poly(phenylene sulfide) having a molecular weight of 4,000-200,000, and a melting point of above 250 degree C. The poly(phenylene sulfide) comprises poly(1,4-phenylene sulfide) and/or poly(1,3-phenylene sulfide). (See col. 3, line 8 thru col. 3, line 49 and col. 4, line 34). Tsuchida and Schleicher are analogous art because they are from a similar problem solving area in relation to ozone

gas resistance. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the poly(1,4-phenylene sulfide) and/or poly(1,4-phenylene sulfide) of Schleicher with the invention of Tsuchida, and the motivation would be, as Schleicher suggests, to reduce the ozone content in the recording sheet by reacting the ozone with the poly(1,4-phenylene sulfide) and/or poly(1,3-phenylene sulfide) (col. 1, line 65).

8. With respect to the amount of the poly(1,4-phenylene sulfide) or poly(1,3-phenylene sulfide), the experimental modification of this prior art in order to, ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. One of ordinary skill in the art would have been motivated to adjust the amount of the poly(1,4-phenylene sulfide) or poly(1,4-phenylene sulfide), and the motivation would be to ensure a high density of printed images, to provide images having high quality, to show only a slight color change and discoloration of printed images even when exposed to ozone gas. A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

9. Claims 4, 6, 21-26 and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schleicher et al. (US 5,837,036).

10. Schleicher teaches a composition comprising poly(phenylene sulfide) coated on a support, wherein the poly(phenylene sulfide) has a molecular weight of 4,000-

200,000, and a melting point of above 250 degree C. The poly(phenylene sulfide) comprises poly(1,4-phenylene sulfide) and/or poly(1,3-phenylene sulfide). (See col. 3, line 8 thru col. 3, line 49 and col. 4, line 34).

11. With respect to the amount of the poly(1,4-phenylene sulfide) or poly(1,3-phenylene sulfide), the experimental modification of this prior art in order to, ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. One of ordinary skill in the art would have been motivated to adjust the amount of the poly(1,4-phenylene sulfide) or poly(1,4-phenylene sulfide), and the motivation would be to reduce or control ozone degradation of the coated support. A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

### ***Response to Arguments***

12. The limitation of melting the inhibitor to at above 285 degree C and then coating it is a process limitation. Since all claims are directed to a product, the patentability of the product does not depend on the method of its production; it depends on the product itself. Schleicher teaches a support coated with the claimed type of inhibitor, and also the combination of Tsuchida and Schleicher teaches a medium having a coating layer containing the claimed type of inhibitor.

***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is (571)272-1529. The examiner can normally be reached on Monday-Friday 9am-5pm.
14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BS  
February 27, 2009.

/Betelhem Shewareged/  
Primary Examiner, Art Unit 1794